

Appl No.: 10/084,688

Atty. Dkt.  
UCF-293

Claim 24(Currently Amended). The method of claim ~~23~~ 21, wherein the sensitivity providing step includes: ~~at least~~ approximately 5.4mV/degree Centigrade.

Claims 25-26(Canceled).

Claim 27(Currently Amended). A method of ~~producing~~ making a nano sized sensor comprising the steps of:

(a) depositing a first metal nano sized strip on an electrical insulator substrate by a FIB (Focused Ion Beam) deposition process;

(b) depositing a second metal nano sized strip on the same said substrate by said FIB process ~~in a point shaped configuration on a portion on of~~ said first metal nano sized strip, the second metal nano sized strip being formed of a different metal material from the first nano sized strip, wherein the first metal nano sized strip and the second metal nano sized strip each include a thickness of approximately 50nm; and

(c) forming a point shaped configuration portion to create a bi-metal sensing junction from the point shaped configuration portion between the first metal nano sized strip and the second metal nano sized strip, wherein the bi-metal sensing junction includes a cross-sectional area of approximately 50 X 50 nm<sup>2</sup>.

Claim 28(Previously Presented). The method of claim 28, wherein one of the first metal nano sized strip and the second nano metal sized strip is W(tungsten) and another of the first metal nano sized strip and the second nano sized strip is Pt(platinum).

Claim 29(Currently Amended). The method of claim 28, ~~wherein the forming step includes further comprising~~ the step of: sensing temperature at the bi-metal junction, wherein the nano sized sensor functions as a thermocouple.

Claim 30(Canceled).

Claim 31(Currently Amended). The method of claim ~~30~~ 28, wherein the sensitivity providing step includes: ~~at least~~ approximately 5.4mV/degree Centigrade.

Claims 32-33(Canceled).